AXELSSON et al

Appl. No.: To Be Assigned

US National Phase of PCT/GB03/01463

October 7, 2004

10/510445

DT04 Rec'd PCT/PTO 0 7 OCT 2004

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1. (original) Cathode unit for installation in a fluorescent tube body (3) belonging to a fluorescent tube (1), which cathode unit (5) comprises a cathode screen (15a, 15,15'-15""), which partially surrounds an electrode (9) which is electrically insulated from the said cathode screen(15), a power supply device (11) arranged to make an electrical connection between the said electrode (9) and a contact (13), the said cathode screen (15) comprising a first end (19) facing towards the discharge, which first end (19) comprises a central opening (21), and a second end (39) facing towards the said contact (13), characterised in that the first end (19) of the cathode screen (15a, 15,15'-15"") is designed with a rounded-off part (25) in order to facilitate the insertion of the cathode unit (5) in the said fluorescent tube body (3).
- 2. (Original) Cathode unit according to Claim 1, characterised in that the said cathode screen (15a) is designed with at least one side wall (2) essentially incident to a centre line (CL).
- 3. (Currently amended) Cathode unit according to Claim 1-or 2, characterised in that the said cathode screen (15a, 15,15'-15"") is manufactured in one piece.
- 4. (Currently amended) Cathode unit according to Claims 1 to 3 Claim 1, characterised in that the said cathode screen(15a, 15,15'-15"") is manufactured of metal.
- 5. (Currently amended) Cathode unit according to any one of the preceding claims Claim 1, characterised in that the said cathode screen (15a, 15,15'-15"") is

AXELSSON et al

Appl. No.: To Be Assigned

US National Phase of PCT/GB03/01463

October 7, 2004

designed with at least one slot (31) within the area for the said power supply device(11).

- 6. (Currently amended) Cathode unit according to any one of the preceding claims Claim 1, characterised in that the said cathode screen (15a, 15,15'-15"") is provided on the outside with a heat-insulating material (37).
- 7. (Currently amended) Cathode unit according to any one of the preceding claims Claim 1, characterised in that the outer side of the said cathode screen (15a, 15,15'-15""), viewed in the longitudinal direction of the cathode screen (15), follows a straight line L essentially parallel to the longitudinal axis of the said fluorescent tube body.
- 8. (Currently amended) Cathode unit according to any one of the preceding claims Claim 1, characterised in that the second end (39) of the said cathode screen(15a, 15,15'-15"") is completely open.
- 9. (Currently amended) Cathode unit according to any one of the preceding claims Claim 1, characterised in that the inner side (33) of the said cathode screen (15a, 15,15'-15"") is coated with an electrically-insulating material.
- 10. (Original) Method for manufacturing a fluorescent tube (1) comprising a fluorescent tube body (3), a cathode unit (5), which cathode unit (5) comprises a cathode screen (15a, 15,15'-15"") which partially surrounds an electrode (9) provided with emitter material (23), which electrode (9) is electrically insulated from the said cathode screen (15), a power supply device (11) attached to a foot (7), which power supply device (11) is arranged to make an electrical connection between the said electrode (9) and a contact (13), the said cathode screen (15) comprising a first end

AXELSSON et al

Appl. No.: To Be Assigned

US National Phase of PCT/GB03/01463

October 7, 2004

(19) facing towards the discharge, which first end comprises a central opening (21), and a second end (39) facing towards the said contact (13), characterised by the stages:

- pressing the said cathode screen in one piece with the first end (19) being shaped with a rounded-off part (25);
- welding the cathode screen (15a, 15,15'-15"") to a fixing device (17) that is attached to the said foot (7);
- inserting the said cathode unit (5) in the said fluorescent tube body (3); removal of decomposition products of the emitter material (23) by pumping; and
- sealing the fluorescent tube (1) when all the decomposition products have been removed from the fluorescent tube (1).
- 11. (Currently amended) Fluorescent tube comprising at least one cathode unit (5) according to any one of the preceding claims Claim 1.